UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,070	10/29/2003	Keith Alan Hankin	50277-2241	8121

42425   7590   07/19/2010
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ART UNIT	PAPER NUMBER
2163	

MAIL DATE	DELIVERY MODE
07/19/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2010*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-16 and 18-26* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-16 and 18-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application
> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
> title before the invention thereof by the applicant for patent.

2.   The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   **Claims 1-3, 5-11, 13-16, 18-24 and 26 are rejected under 35 U.S.C. 102(e) as**

being anticipated by Chinta et al (US Patent 6879995).

        As to claims 1 and 14, Chinta discloses a method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, comprising: storing by a first database server (Figure 2C, 108A) a first set of

space usage data (column 39, lines 53-56 and figure 23, wherein check for out of

storage can be performed by each application server) that identifies a first amount of

free space associated with the database (Figure 2C, 110), wherein the first set of space

usage data is updated (Figure 23, step 502, check for out of storage and periodic

update), by the first server, based on changes made to the database by the first

database server (for instance logging message and minimizing existing free space);

retrieving, from one or more second database servers (Figure 2C, 108B), a second set

of space usage data (column 14, lines 3-9) wherein the first set of space usage data is

separate and distinct from the second set of space usage data (Figure 2A, elements

108A and 108B, wherein each of those application servers checks space usage prior to

logging, hence each of those servers maintains separate and distinct set of space

usage data); that identifies a second amount of free space associated with the

database (Figure 2C, 110), wherein the second set of space usage data is updated

(Figure 23, step 502, check for out of storage and periodic update (Figure 23, step 502,

check for out of storage and periodic update, wherein this step can be performed by any

application server), by the one or more second database servers, based on changes

made to the database by the one or more second database servers (logging messages

and reducing space in the database by the second application server); updating the first

set of space usage data with the second set of space usage data (column 14, lines 40-

55, wherein the request for log could be redirected to other application server, in this

instance logging information in the application server to which request was transferred

might be updated with out of space data for the new logging message/request, which

might have a different size than the previously existing one and therefore previous out

of space data on the applicant data might not be sufficient); and evaluating the usage of

space in the database based on the updated first set of space usage data (column 39,

lines 42-56, in order to determine if logging operation can be performed or resumed, the evaluation of database must be performed).

As to claims 2 and 15, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the first set of space usage data and the second space usage data each reflect the amount of free space in one or more tablespaces that are each associated with the database (column 37, lines 50-51 and column 39, lines 53-56).

As to claims 3 and 16, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the first set of space usage data and the second space usage data each reflect the amount of free space in one or more files (wherein database table is associate with a file) that are each associated with the database (column 37, lines 50-51 and column 39, lines 53-56).

As to claims 5 and 18, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of storing the first set of space usage data comprises: storing a subset of the first set of space usage data (Figure 23, steps 502 and 504, and wherein server (108A or 108B) has a capacity to store the data), wherein each subset is associated with a transaction initiated by the first database server (prior to update space check there is a log in service associated with the application server, so that is the indication that the space check in the database should be performed) that is performed on the database.

As to claims 6 and 19, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of storing the first set of space usage data comprises: examining the database to generate the first set of space usage data (column 5, lines 13-16).

As to claims 7 and 20, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of retrieving the second set of space usage data comprises: determining that a configurable period of time has expired (Figure 23, step 502, wherein the space check occurs periodically, i.e. set time; paragraph 39, lines 53-56), wherein the configurable period of time indicates an amount of time to wait before retrieving second the second set of space usage data from one or more second clients.

As to claims 8 and 21, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of evaluating the usage of space in the database comprises: determining if a tablespace in the database has exceeded a configurable threshold (column 40, lines 25-31; wherein the amount if remaining storage space that is associated with low level of storage space is considered to be threshold).

As to claims 9 and 22, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, comprising: raising an alert that indicates that the usage of space in a

tablespace in the database has exceeded a configurable threshold (column 40, lines 11-

16).

As to claims 10 and 23, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, comprising: in response to the step pf evaluating of the usage of space in the

database, scheduling space reclamation for the database (Figure 23, step 510).

As to claims 11 and 24, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, wherein the database is in a distributed cluster if databases (as shown in

figure 2A application servers and main database are all connected (cluster), since

application servers have storage capability the can also be considered a database

(server for storing data)).

As to claims 13 and 26, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, wherein the steps of retrieving, updating, and evaluating may be repeated in

sequence after a configurable amount of time lapses the step of evaluating was last

performed (as shown in figure 23, if the system is not our of space (step 504) the flow

chart loops so that the steps of checking and evaluating can be performed again).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

>   (a) A patent may not be obtained though the invention is not identically disclosed or described as set
>   forth in section 102 of this title, if the differences between the subject matter sought to be patented and
>   the prior art are such that the subject matter as a whole would have been obvious at the time the
>   invention was made to a person having ordinary skill in the art to which said subject matter pertains.
>   Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over Chinta et al (US Patent 6879995) in the view of Levine et al (US Publication

20030177187). Chinta teaches all the limitations disclosed in claims 1 and 14, except

for the database being in a grid of databases. Levine heals this deficiency by teaching

computing grid for massively multi-user immersive persistent-state and session based

applications (Figure 7). It would have been obvious to one of the ordinary skill in the art

during the time the invention was made to use a database in a grid of databases in the

Chinta's monitoring system because as taught by Levine computing grid speeds up the

access time and improves functionality of the network.

Response to Arguments

6.   Applicant's arguments filed June 18, 2010 have been fully considered but they

are not persuasive.

7.   *In the first argument the Applicant alleging that "the passage relied upon to teach*

the second set of space usage data fails to even teach space usage data, much less

second space usage data that is used to update another first set of space usage data.

Thus, the rejection rests on passages that cannot possibly teach using the second set

of space usage to update another first set of space usage data, as claimed". (page 10)

8.   The Examiner disagrees with the above allegation. Figure 23 illustrates checking

out of storage condition (i.e. monitoring free space) which can be performed by any of

the application servers. Both of the servers are capable of checking for out of storage

condition and there is no need to duplicate the figure just to show that server 108A and

108B can independently check for free space. Furthermore, since each server can

verify the free space and obtain required information associated with the storage, each

of the server comprises space usage data which during the load balancing can be

provided to other application server.

9.   The Applicant also alleges that the cited passages cannot possibly teach using

the second set of space usage data to update first set of data, the Examiner disagrees.

In particular column 14, lines 3-9 recites "load balancing" which in fact allows sharing

information among application servers, wherein some examples of types of broadcasted

information are recited in column 14, lines 20-26. For instance, disk input/output data

can be shared, so in other words information about space usage is communicated

among application servers. Accordingly, the Examiner maintains that Chinta teaches *the*

second set of space usage updating another first set of space usage data.

10.   *Then in the second argument, the Applicant contends that ": Examiner also take*

a self-contradictory position. In prima facie case, the Examiner relies on the out of

storage condition being the second set of space usage. Thus, the Examiner flips-flops

between contradictory positions of: (1) the second set of space usage data is loading

balancing information and is not the out of storage condition, and (2) the second set of space usage data is the out of storage condition, It is a clear error to adopt and rely on both positions". (page 10)

11.   The Examiner disagrees with the Applicant's allegation. Aside from that, for the purpose of argument clarity, the Applicant is requested to recite the portion of the rejection which demonstrates such a self-contradictory position. It appears however that the only place where the Examiner mentioned load balancing in the independent claim is for sharing and updating information pertaining to usage data which is taught by Chinta in a form of load balancing. In particular, according to column 14, lines 20-23, information about disk input/output can be shared among servers. Furthermore logging service can check for space on a disk (column 39, lines 60-62) prior to performing the operation. If the space is sufficient, the logging function takes place which in result takes part of the storage space, and this is considered as disk input. Accordingly one of ordinary skill in the art could recognize that load balancing is directly related to disk usage space. Similarly the out of space condition also pertains to the available space on a disk. On the other hand, the Examiner would also like to note that claim 1 recites "set of space usage data" hence there could be more than just one piece of information pertaining to the available space and there is no requirement that all of the data has to be updated. Therefore, set of usage data in Chinta's teaching could be represented by out-of space information as well as disk input/out data since both of them are directly related to the available storage space. Consequently, the Examiner is far from contradicting herself. The reference also should be considered as whole, thus not only

cited passages should be taken into consideration while reviewing prior art but also

remaining disclosure.

Inquiry

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ANGELA M. LIE whose telephone number is (571)272-

8445. The examiner can normally be reached on M-F.

13.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

14.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Angela M Lie/
Examiner, Art Unit 2163